

6HB7

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For VHF Oscillator-Mixer Service in TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6^a	volts
Current at heater volts = 6.3 . . .	0.450 ^b	amp
Warm-up time (Average)	11	sec
Peak heater-cathode voltage:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 ^c max.	volts

Direct Interelectrode Capacitances:^d

Triode Unit:

G_T to P_T	1.9	pf
Input: G_T to (K+G3 _P +IS,H). . . .	3.0	pf
Output: P_T to (K+G3 _P +IS,H). . . .	1.9	pf

Pentode Unit:

G_{1P} to P_P	0.010 max.	pf
Input: G_{1P} to (K+G3 _P +IS,G2 _P ,H). .	5.0	pf
Output: G_{1P} to (K+G3 _P +IS,G2 _P ,H). .	3.4	pf
H to K ^e	3.8	pf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	150	125	volts
Grid-No.2 Supply Voltage	—	125	volts
Grid-No.1 Supply Voltage	0	—1	volts
Cathode Resistor	56	—	ohms
Amplification Factor	40	—	
Plate Resistance (Approx.)	5000	200000	ohms
Transconductance	8500	6400	μmhos
Plate Current.	18	12	ma
Grid-No.2 Current.	—	4	ma
Grid-No.1 Voltage (Approx.)			
for plate $\mu_a = 10$	—12	—9	volts

Mechanical:

Operating Position	Any
Type of Cathode.	Coated Unipotential
Maximum Overall Length	2-3/16"
Maximum Seated Length.	1-15/16"
Length, Base Seat to Bulb Top (Excluding Tip). .	1-9/16" $\pm$ 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline.	See General Section
Bulb	T6-1/2



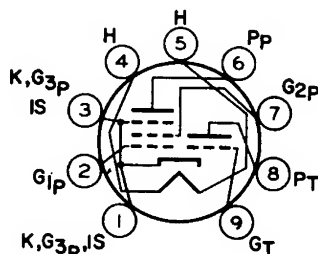
RADIO CORPORATION OF AMERICA
Electronic Components and Devices Harrison, N. J.

DATA 1
3-64

6HB7

Base Small-Button Noval 9-Pin (JEDEC No. E9-1)
 Basing Designation for BOTTOM VIEW. 9QA

- Pin 1—Cathode, Pentode
 Grid No. 3,
 Internal Shield
- Pin 2—Pentode Grid No. 1
- Pin 3—Same as Pin 1
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Pentode Plate
- Pin 7—Pentode Grid No. 2
- Pin 8—Triode Plate
- Pin 9—Triode Grid



AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
Plate Voltage	330 max.	330 max.	volts
Grid-No. 2 (Screen-Grid) Supply Voltage.	—	330 max.	volts
Grid-No. 2 Voltage	See <i>Grid-No. 2 Input Rating Chart</i> at front of Receiving Tube Section		
Grid-No. 1 (Control-Grid) Voltage:			
Positive-bias value	0 max.	0 max.	volts
Grid-No. 2 Input:			
For grid-No. 2 voltages up to 165 volts	—	0.55 max.	watt
For grid-No. 2 voltages between 165 and 330 volts	See <i>Grid-No. 2 Input Rating Chart</i> at front of Receiving Tube Section		
Plate Dissipation	2.5 max.	3.1 max.	watts

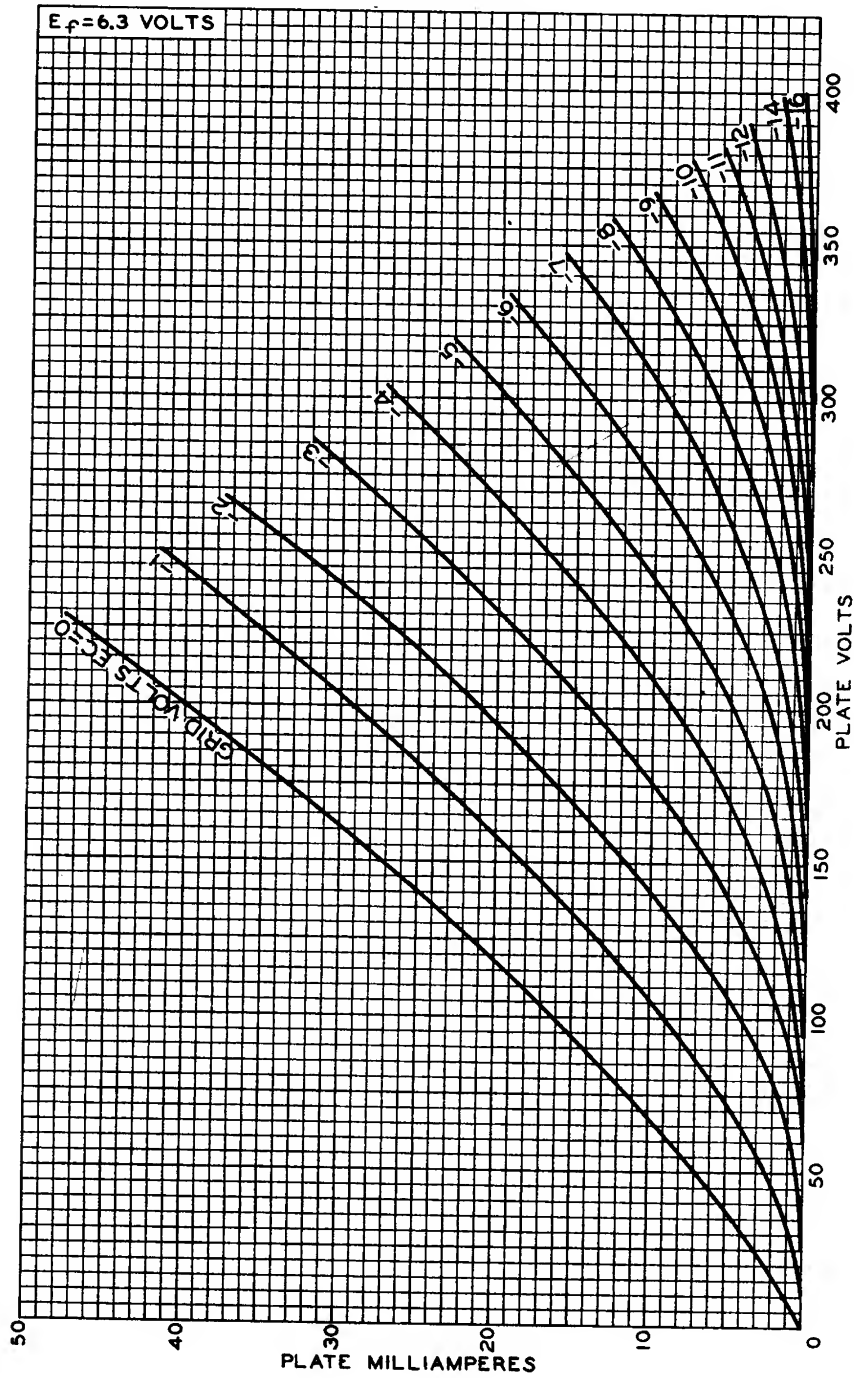
Maximum Circuit Values:

Grid-No. 1 Circuit Resistance:			
For fixed-bias operation. . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation. .	1.0 max.	0.5 max.	megohm

- a For parallel heater operation.
- b For series heater operation current must be limited to 0.450 ± 0.030 amperes.
- c The dc component must not exceed 100 volts.
- d with external shield JEDEC No. 315 connected to cathode except as noted.
- e with external shield JEDEC No. 315 connected to ground.

6HB7

AVERAGE PLATE CHARACTERISTICS Triode Unit



92CM-9866

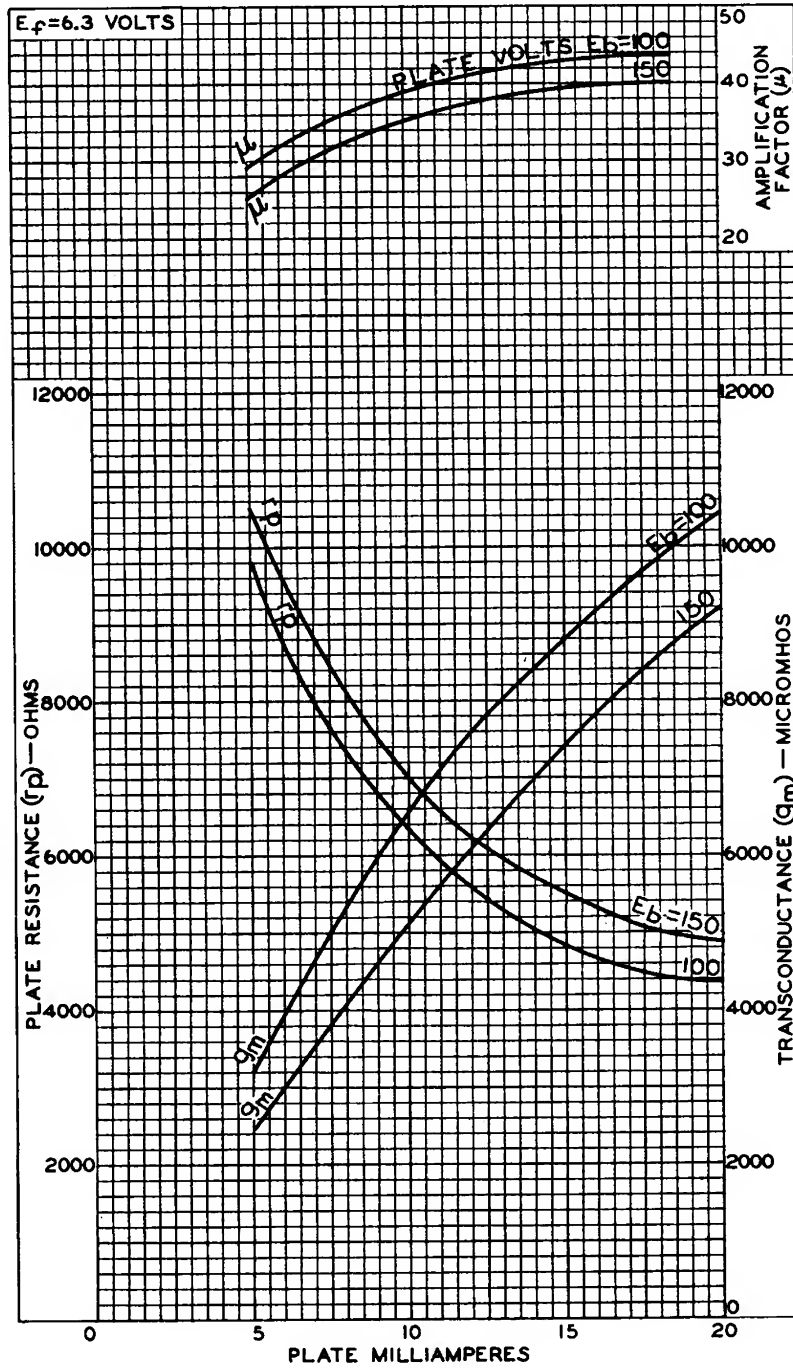


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DATA 2
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AVERAGE CHARACTERISTICS Triode Unit



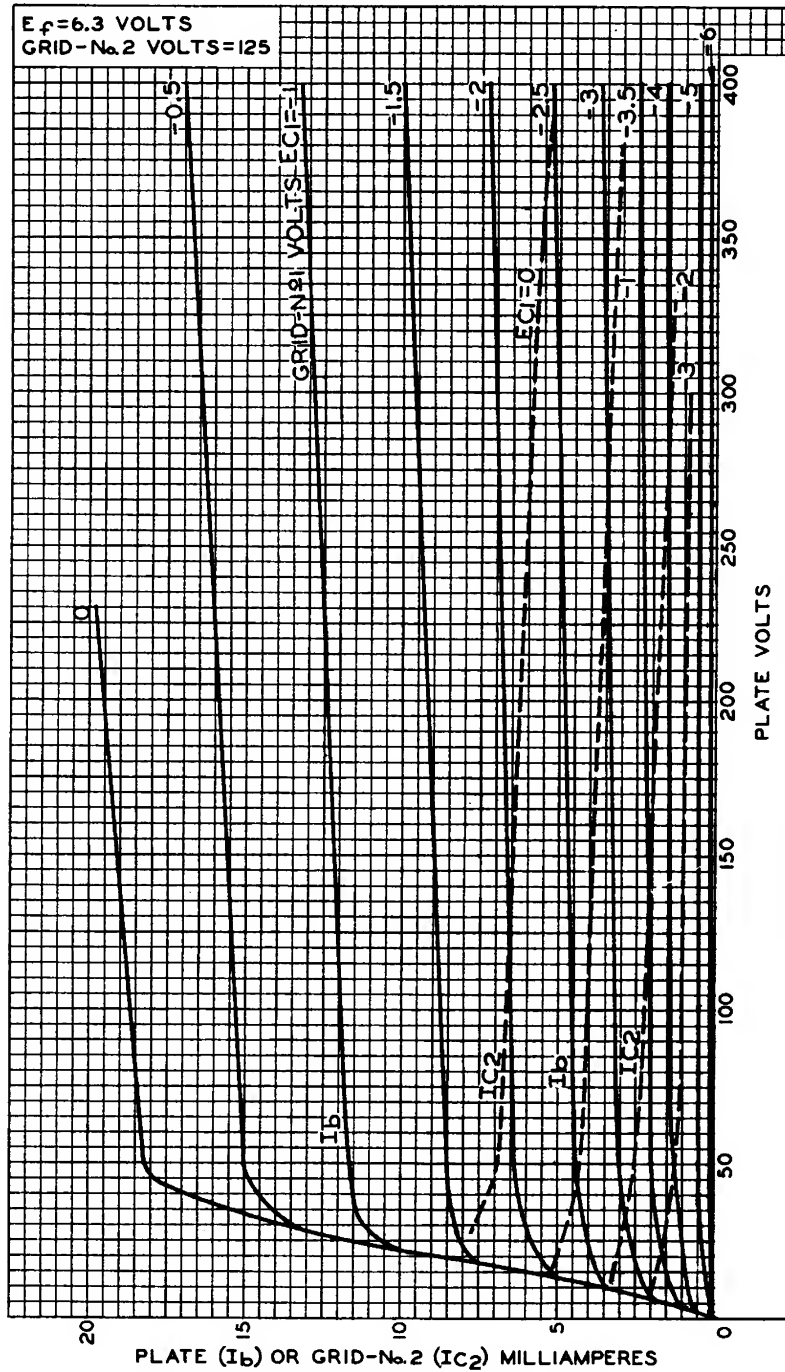
92CM-9882RI

RADIO CORPORATION OF AMERICA
Electronics Division



6HB7

AVERAGE CHARACTERISTICS Pentode Unit



92CM-9867RI

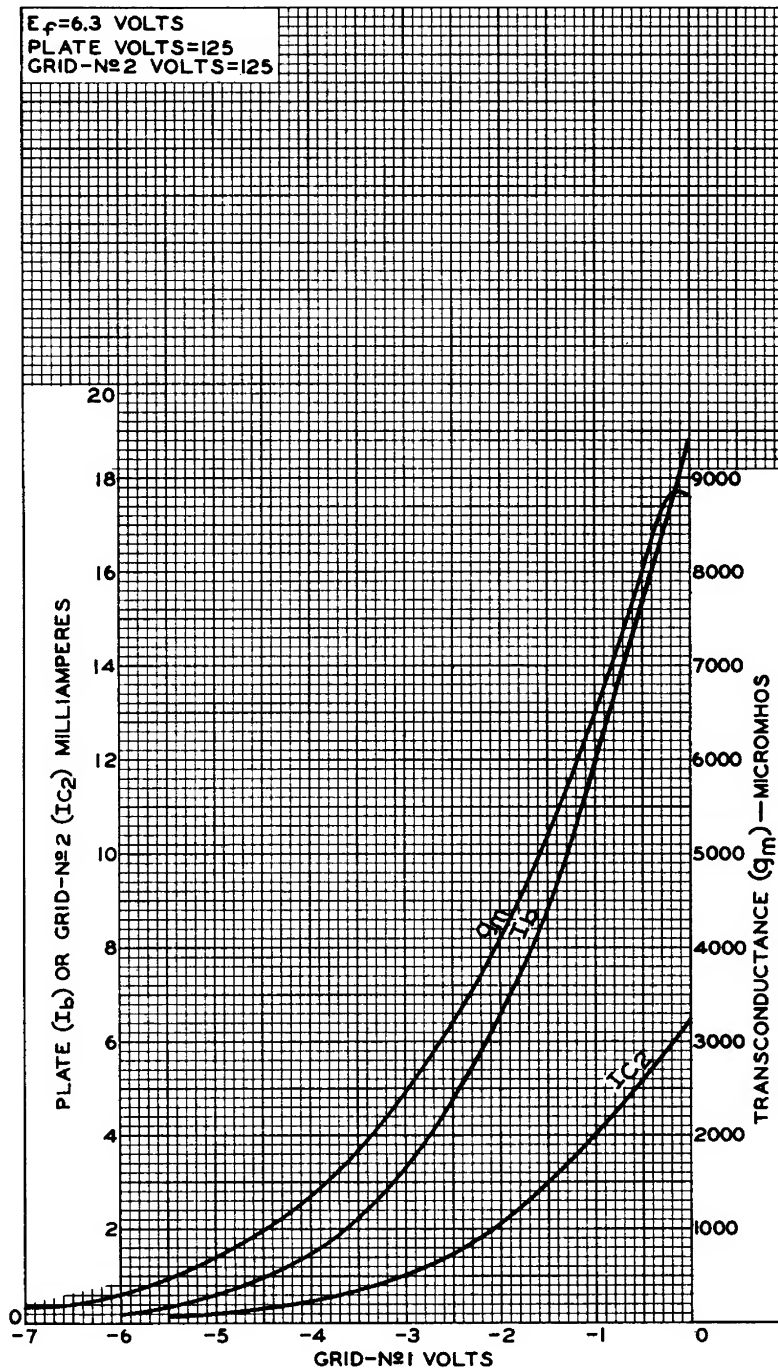


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DATA 3
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AVERAGE CHARACTERISTICS Pentode Unit



92CM-9868RI

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